

3.0 Purpose

The Population Inventory and Analysis Chapter of the Comprehensive Plan gives an overview of the pertinent demographic trends and background information necessary to develop an understanding of the changes taking place in the Town of Excelsior. In this chapter we will examine the population profile of Excelsior. The population profile includes features that affect community dynamics and processes such as regional trends in population, housing units and persons per household, as well as local trends in housing occupancy, population composition, age distribution and length of residency. In analyzing these trends and projections, citizens of the Town of Excelsior will gain a more complete understanding of future planning issues that should be addressed within this Comprehensive Plan.

3.1 Regional Population and Housing Trends

In evaluating changes in population and housing units in the Town of Excelsior, comparing regional and local growth trends will help track similarities and differences between Excelsior and nearby towns, and allow the Town of Excelsior to create a Comprehensive Plan unique to its specific issues and goals.

Population

As **Table P1 Regional Population Trends** indicates, the population in the Town of Excelsior has fluctuated since 1970. Overall, between the years of 1970 and 2000, Excelsior’s population increased by 624 persons, or at an average of 208 persons per 10 years. The population grew by 481 persons or 61% , from 1970 to 1980. Population shrunk by 72 people between 1980 and 1990, then from 1990 to 2000 Excelsior experienced a population growth of 216 persons, or 18.1%. Over the thirty years between 1970 and 2000 Excelsior’s average 10-year growth rate (24.5%) was faster than some towns yet slower than others. Sauk County experienced an average increase in population of 12.3% per 10 years, and the State of Wisconsin averaged an increase in population of 6.8% per 10 years between 1970 and 2000. Through the examination of these regional trends it is evident that strategies addressing appropriate growth management will need to be incorporated into the Comprehensive Plan for the Town.

Table P1: Regional Population Trends

Regional Population Trends														
Year	Town of Excelsior		Town of Dellona		Town of Delton		Town of Winfield		Town of Reedsburg		Sauk County		Wisconsin	
	#	% change	#	% change	#	% change	#	% change	#	% change	#	% change	#	% change
1970	786		472		846		608		1,442		39,057		4,400,000	
1980	1,266	61.1%	705	49.4%	1,426	68.6%	624	2.6%	1,468	1.8%	43,469	11.3%	4,700,000	6.8%
1990	1,194	-5.7%	768	8.9%	1,599	12.1%	649	4.0%	1,367	-6.9%	46,975	8.1%	4,891,769	4.1%
2000	1,410	18.1%	1,199	56.1%	2,024	26.6%	752	15.9%	1,236	-9.6%	55,225	17.6%	5,363,675	9.6%
Overall change 1970 - 2000	624	79.4%	727	154.0%	1,178	139.2%	144	23.7%	-206	-14.3%	16,168	41.4%	963,675	21.9%
Average change per 10 years	208	24.5%	242.3	38.1%	393	35.8%	48	7.5%	-69	-4.9%	5,389	12.3%	321,225	6.8%

Source: US Census 2000

Housing Units

From 1990 to 2000, the numbers of housing units have increased moderately in Excelsior and in many surrounding Towns. As seen in **Table P2 Regional Housing Unit Comparison**, the Town of

Excelsior’s increase in housing units (27.11%) is above the increase experienced by Sauk County (18.88%) and the state of Wisconsin (12.91%) between the years 1990 and 2000.

Table P2: Regional Housing Unit Comparison

Year	Regional Housing Unit Comparison											
	Town of Excelsior		Town of Reedsburg		Town of Dellona		Town of Delton		Town of Freedom		Town of Baraboo	
	Number of Units	Percent Change	Number of Units	Percent Change	Number of Units	Percent Change	Number of Units	Percent Change	Number of Units	Percent Change	Number of Units	Percent Change
1990	439		373		400		777		179		614	
2000	558	27.11%	415	11.26%	498	24.50%	862	10.94%	182	1.68%	751	22.31%

Source: US Census, 1990 and 2000 (QT-H1)

Average Household Size

Comparing the number of persons per household during 1990 and 2000 shows that the Town of Excelsior saw a decrease in numbers of persons per occupied house, as did two neighboring towns. Comparing Excelsior, Sauk County, and the State of Wisconsin, all three experienced a decline, as seen in **Table P3 Regional Average Household Size Comparison**. Both the State and the County averaged approximately 2.5 persons per household in 2000.

Table P3: Regional Average Household Size Comparison

Year	Average Household Size - Persons Per Household					
	Excelsior	Freedom	Reedsburg	Dellona	Sauk County	Wisconsin
1990	2.96	2.83	3.1	2.84	2.61	2.61
2000	2.63	2.63	2.88	2.84	2.51	2.5
Change	-0.33	-0.2	-0.22	0	-0.1	-0.11

Source: US Census, 1990 and 2000 (QT-P10)

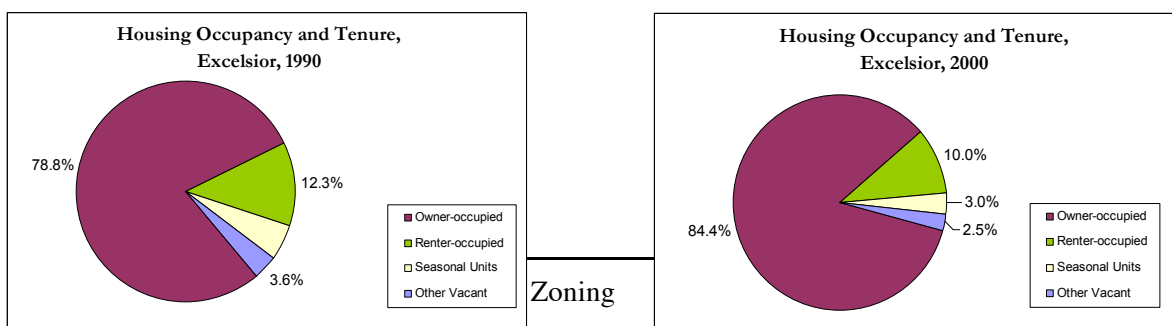
3.2 Local Population and Housing Trends

A look at local demographics profiles illustrates local trends and conditions, and provides insight as to the types of services both wanted and required by the community. The local trends section includes an examination of occupied housing, population composition, population by age bracket, and length of residency.

Occupied Housing

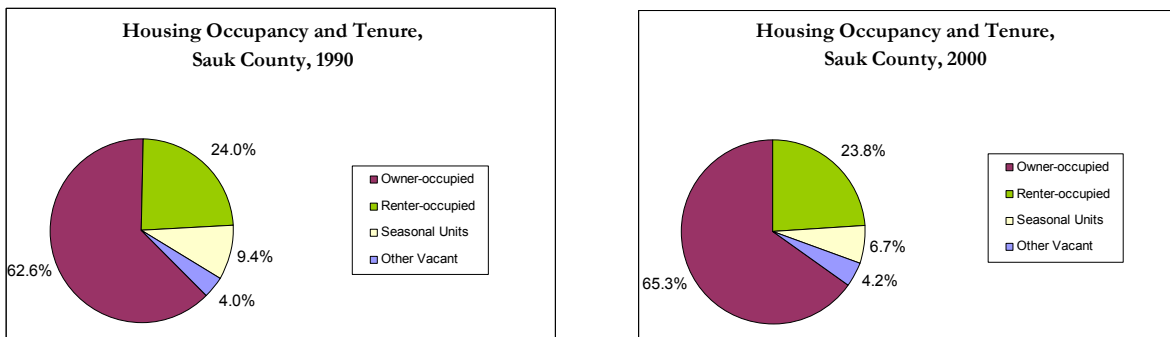
Determining the number of all housing units, the number of these units occupied, and the number of persons per occupied household assists our understanding of population trends. In Excelsior, the number of housing units increased from 439 in 1990 to 558 in 2000, the number of occupied housing units increased from 94.7% in 1990 to 97.0% in 2000. Occupancy rate trends for both Excelsior and Sauk County are noted for the years 1990 and 2000 on **Charts P4 through P7**.

Charts P4 and P5: Occupancy Rate and Tenure Excelsior 1990 vs. 2000



Source: Wisconsin Department of Administration (DOA); US Census, 1990, 2000.

Charts P6 and P7: Occupancy Rate and Tenure Sauk County 1990 vs. 2000



Source: Wisconsin Department of Administration (DOA); US Census, 1990, 2000

Population Composition: Age and Race

Median age is defined as the age at which half of the population is above and half is below. **Table P8 Age Distribution, Excelsior and Sauk County** shows the median age in Excelsior at 39.8 during 2000. This is comparable to the median age of Sauk County at 37.3 for the same time period. The Town of Excelsior has a lower percentage of people older than 65, as well as people younger than 18 in comparison to Sauk County.

Table P8: Age Distribution, Excelsior and Sauk County

Age Distribution, 2000					
Year 2000	Percent under 18	Percent 19-64	Percent over 65	Median Age	Mean Age
Town of Excelsior	23.6%	64.7%	11.7%	41.8	39.8
Sauk County	26.0%	59.5%	14.5%	37.3	37.3

Source: U.S. Census, 1990 and 2000

Table P9 Ethnic Composition, Excelsior and Sauk County shows that in 2000 there was an extremely similar ethnic composition between the Town of Excelsior and Sauk County. Caucasians dominated both areas making up 98% or more of the population.

Table P9: Ethnic Composition, Excelsior and Sauk County

Ethnic Composition, 2000							
Year	Percent White	Percent Black or African American	Percent American Indian and Alaska Native	Percent Asian	Percent Native Hawaiian and Other Pacific Islander	Percent Some Other Race	Percent Hispanic or Latino (of any race)
Town of Excelsior	98.8%	0.0%	0.9%	0.3%	0.0%	0.7%	0.9%
Sauk County	98.0%	0.4%	1.1%	0.3%	0.0%	0.7%	1.17%

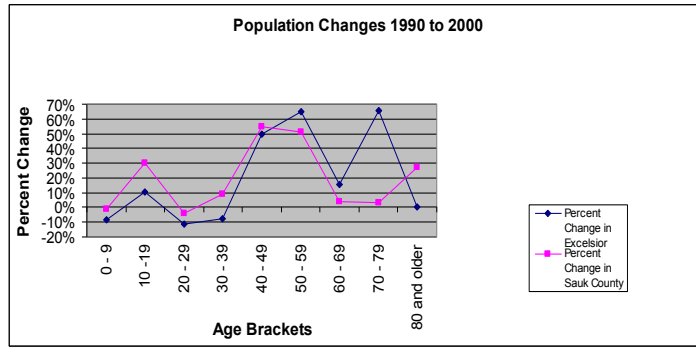
Source: US Census, 2000

* Composition may equal more than 100% because some may report more than one ethnicity.

Population per Age Bracket

Chart P10: Change of Populations per Age Bracket

Chart P10 Change of Populations per Age Bracket breaks down the changes in population by age brackets for both the Town of Excelsior and Sauk County from 1990 to 2000. Generally, this chart shows that the Town of Excelsior experienced similar growth in similar age groups in comparison to the County. The exception is where Excelsior noticeably gained population in the 70-79 age group while Sauk County experienced very little population growth in the same bracket. The chart shows that Town has experienced little or negative growth in the younger age groups. Most of the population growth occurred in the age groups greater than 40 years of age, the exception for this being the 80 and older age group, which experienced no growth.



Source: US Census, 1990 and 2000

age group while Sauk County experienced very little population growth in the same bracket. The chart shows that Town has experienced little or negative growth in the younger age groups. Most of the population growth occurred in the age groups greater than 40 years of age, the exception for this being the 80 and older age group, which experienced no growth.

Length of Residency

According to sample data included in the 2000 census, 8.7% of Town residents moved into Excelsior in or before 1969. **Table P11 Length of Residency** shows that 35.2% of those surveyed moved to the Town between the years 1970 and 1989. Since 1990, 56.1% of people surveyed moved to the Town. It is evident from this data that the Town of Excelsior has been experiencing an influx of people into the Town since 1995.

Table P11: Length of Residency

Year Householder Moved Into Unit (renter and owner occupied)	(#) Excelsior	(%) Excelsior	(#) Sauk County	(%) Sauk County
1969 or earlier	46	8.7%	2,153	11.6%
1970 - 1979	70	13.2%	2,186	11.8%
1980 - 1989	117	22.0%	3,620	19.5%
1990 - 1994	100	18.8%	4,107	22.2%
1995 - March 2000	198	37.3%	6,474	34.9%
Total	531	100.0%	18,540	100.0%

Source: US Census 2000

3.3 Interpretation of Demographic Data

The Town of Excelsior has experienced periods of growth and loss in population since 1970, with an average gain in population of 24.5% per 10 years between 1970 and 2000. The number of housing units has increased moderately between the years of 1990 and 2000, which corresponds to an increase in population. The average number of people per household decreased slightly from 2.96 in 1990 to 2.63 p.p.h. in 2000. With an average population growth 24.5% every 10 years, and a decreasing household size, the number of new homes built in the Town of Excelsior will be affected.

The population of the Town of Excelsior in 2000 was 1,410 as reported by the U.S. Census Bureau. At the average rate of 24.5% growth every 10 years over the last 30 years and a static household size of 2.63, the Wisconsin Dept. of Administration estimates that the population in the year 2020 will be approximately 1,960. However, the actual average household size reported by the U.S. Census Bureau decreased by 12.5% between 1990 and 2000. At this rate of decrease, by the year 2020 the average household size will be at approximately 2.08 p.p.h. This is an extremely low household size and maybe unrealistic, but it demonstrates that the impact of lower household populations is to increase the demand for new homes.

In 1990 there were 439 housing units in Excelsior, compared with 558 in 2000, an increase of 119 housing units, or about 27%. While the population increased by 216, or 18.1%, the number of persons per household actually dropped by about 12%, from 2.96 in 1990 to 2.63 in 2000. Looking ahead, in 2020, with a projected population of 1,960 and an average household size of only 2.08, the number of housing units would be approximately 942, a difference of 384 housing units from 2000,

up an average of about 35% for the ten-year period. However, if the average household size remains constant at 2.63 with a population of 1,960, the number of housing units would top out at 745, a difference of only 187 housing units.

If the average household size of the Town of Excelsior were the same as that of Sauk County at 2.51, the same projected 2020 population of 1,960 yields about 781 housing units, a difference of 36 housing units from the constant household size projection. Average household size plays an important role in determining the amount of housing and new development needed to support a growing population.

3.4 Population Projections

Given the relatively large (18.1%) increase of population over the 10-year census period in the Town of Excelsior, it is relatively safe to assume that populations will continue to increase in the future. However, the exact rate of increase is not known, nor can it be predicted with complete accuracy. Estimates of future growth for the Town of Excelsior are necessary for effective planning.

To estimate future population growth for the Town of Excelsior, two population projection methods were utilized. The first method is a standard population projection, which considers a linear projection, a growth (or exponential) projection, and the projection provided by the Wisconsin Department of Administration. The second method is a housing-driven population projection. Both methods are explained in more detail below.

Standard Population Projection Methods

- **Linear Projection.** The linear growth model is the most basic of projection methods. The linear model works by drawing a straight, best-fit line through historic data points and extending that line out to future data points.
- **Growth Projection.** The growth projection works in the same manner as the linear projection except that it applies an exponential growth curve to the data. Using the exponential growth method, the rate of population change in each subsequent year increases or decreases at a rate greater than the previous year. This method assumes the population will grow (or decline) without inhibition.
- **Department of Administration Projection Method.** The DOA projection method works in the same manner as the linear projection model except that it gives more weight or influence to more recent years' data. This method calculates a projection (best-fit line) for three historic time periods: 1980-2003, 1990-2003 and 2000-2003. Each projection is then averaged together for a final projection. By averaging the three projections, population change that has occurred in the more recent time period is given more influence. This projection method is based on the premise that recent population trends, from the last 5 or 10 years for example, are more realistic for explaining future population growth than older trends, from 20 or 30 years ago. In some cases, this method can result in gross over- or underestimations of population growth. For example, consider a town of 500 where 5 new residents are added in one year. If this same rate of growth is applied over the next 20 years the town will swell to 600 people. What if, however, you lost 3 residents in the next year? If you apply this average rate of growth (2 people/year) you would have an increase of only 40 people in the next 20 years. The DOA method dampens the effect of very immediate population fluxes by including the three historic time periods. In addition, the DOA method adjusts for abnormal rates of change, such as annexations.

Housing-Driven Population Projections

The housing-driven population projections calculate future population growth based on expected housing growth and the current or expected persons per household. In some instances, this method is a fairly accurate tool, especially when coupled with one of the methods above to serve as a check and balance. The method is best summarized by the following equation:

$$[(\# \text{ Housing units}) \times (\text{occupancy rate}) \times (\# \text{ people/housing unit})] = \text{Population projection}$$

However, the caveat to housing-driven projections is that calculations are based on the assumption that populations grow based on the availability of housing stock. A similar method is widely used to calculate population growth based on employment growth. People often move to an area for a new job, but are less likely to move their family because of more readily available housing. Housing is usually created due to demand, and not the other way around.

Table P12 Population Projections, Town of Excelsior highlights a number of possible projections utilizing the different methods discussed above. Population projections for the year 2020 range from 1,474 to 2,059. Projections for the year 2030 range from 1,127 to 2,374. As can be noted, these projections have a range of over 500 and are, therefore, highly variable.

Table P12: Population Projections, Town of Excelsior

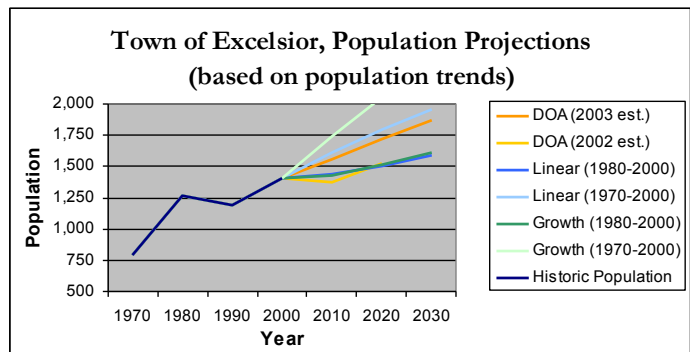
Town of Excelsior Population Projections			Projections									
Year, source	Year	Historic Population	Percent Change	Linear (1970-2000)	Growth (1970-2000)	Linear (1980-2000)	Growth (1980-2000)	Static household size	Limited household size	Household size trend	DOA (2002 est.)	DOA (2003 est.)
1960, per census	1960	773		773	773	773	773	773	773	773	773	773
1970, per cen	1970	786	1.68%	786	786	786	786	786	786	786	786	786
1980, per cen	1980	1,266	61.07%	1,266	1,266	1,266	1,266	1,266	1,266	1,266	1,266	1,266
1990, per cen	1990	1,194	-5.69%	1,194	1,194	1,194	1,194	1,194	1,194	1,194	1,194	1,194
2000, per cen	2000	1,410	18.09%	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410
2010, project	2010			1,614	1,738	1,434	1,433	1,667	1,591	1,464	1,372	1,562
2020, project	2020			1,794	2,059	1,506	1,513	1,960	1,871	1,474	1,521	1,715
2025, project	2025			1,825	2,103	1,578	1,598	2,107	2,010	1,319	1,594	1,791
2030, project	2030			1,956	2,374	1,588	1,609	2,253	2,150	1,127	n/a	1,867

Source: U.S. Census Bureau, 1960-2000, and Wisconsin Department of Administration - Demographic Services Center

Population Projections

Chart P13 Population Projections shows three projection methods that are based on population trends. The projections based on population growth include linear, growth, and DOA projection models. The linear and growth models (using data since 1980) result in population projections of 1,588 (linear) and 1,609 (growth) by the year 2030. The DOA method, which places emphasis on more recent population changes, projects a higher population compared to the linear and growth models, predicting a population of 1,867 by 2030 for the Town of Excelsior.

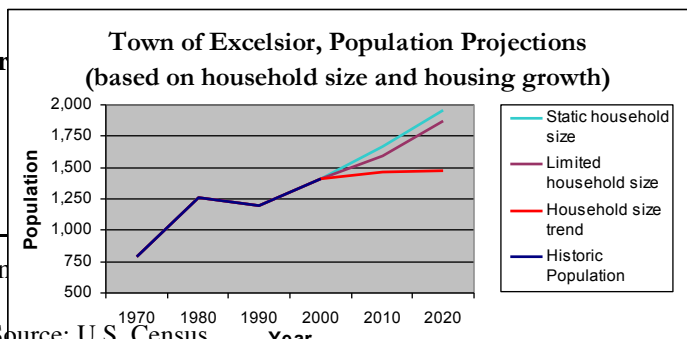
Chart P13 Population Projections based on Population



Source: U.S. Census, Wisconsin DOA

Population projections based on the historic and projected number of housing units coupled with a projected occupancy rate tells a similar story for the Town of Excelsior.

Char



Source: U.S. Census

Housing unit projections assumed a growth rate equal to that occurring between 1990 and 2000 of 18.1% per 10 years. Using this rate of growth, population in the Town of Excelsior is estimated to grow to 1,960 in 2020 and 2,253 in 2030.

The static household size projection assumes the average household size (or persons per household) remains constant at the value observed in 2000 (2.63 persons per household). The projection yields a population of 1,960 by 2020 and 2,253 by 2030. The limited household size projection holds the county average of 2.5 persons per household constant, producing a population projection of 1,871 by the year 2020 and 2,150 by the year 2030. The household size trend projection adjusts household size based on a 12.5% decrease per 10 years. For example, this projection assumes that from the year 2000 to 2010, household size would decrease from 2.63 persons per household to 2.34 persons per household. This produces a projected population of 1,474 in 2020 and 1,127 in 2030. These results are depicted in **Chart P14 Population Projections based on Housing**.

Population Projection Analysis

Population projections based on historic population trends and those based on trends in household size produced similar projections as can be seen in **Charts P13** and **P14** above. Both projection methods illustrate different rates of population growth or loss. The DOA projection method, because it only takes into account population trends from 1990-2000, may be an accurate assessment of future populations due to the more recent growth increase experienced by the Town. Conversely, the linear and growth methods may be least reliable due to the fact that they utilize population changes since 1980, which included one ten-year period of population loss.

The projection types based on housing units and average household size take into consideration that housing units are increasing within the Town while average household size is decreasing. If housing units increase and occupancy rates continue to decrease, as they are currently, the population for the Town of Excelsior will increase as shown in the **Chart P14**. Although it is difficult to ascertain when population growth trends will change, the population in the Town of Excelsior will likely continue to grow. The rate of growth experienced over the last 10 years will most likely continue and even increase over time, as more and more people are attracted to the community.